

Installation & Maintenance Manual



**PVHFL58-300 &
PVHFL510-300**

**5/8 and 5/10
Horizontal Flush
Louvered
Power Vent**



WARNING

If the information in these instructions is not followed exactly, a fire or explosion may result causing property damage, personal injury or death.



WARNING

Do not store or use gasoline or any other flammable vapors and liquids in the vicinity of this or any other appliance.



CAUTION

Installation and service must be performed by a qualified installer, service agency or the gas supplier.

NOTICE

Installer: Leave this manual with the appliance.

Consumer: Retain this manual for future reference.

DANGER

IF YOU SMELL GAS

- ▲ Do not try to light any appliance.
- ▲ Do not touch any electrical switch; do not use any phone in your building.
- ▲ Immediately call your gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- ▲ If you cannot reach your gas supplier, call the fire department.

NOTICE

This power vent is approved for use with Montigo fireplaces only and is certified to ANSI Z21.50 / CSA 2.22 vented gas fireplace standard along with the fireplace.

NOTICE

PVHFL58-300 power vent is approved for use with Montigo R320, R320-ST, R420, R420-ST, and RP620.

NOTICE

PVHFL510-300 power vent is approved for use with Montigo R520, R520-ST, R620-ST, R720, and R820.

Safety Alert Key



DANGER

Indicates a hazardous situation which, if not avoided, **WILL** result in death or serious injury or property damage.



WARNING

Indicates a hazardous situation which, if not avoided, **COULD** result in death or serious injury or property damage.



CAUTION

Indicates a hazardous situation which, if not avoided, **WILL** result in minor or moderate injury.

NOTICE

Addresses practices that are important, but not related to personal injury

Introduction

Specifications

Pipe Dimensions PVHFL58-300 5"/8"

Pipe Dimensions PVHFL510-300 5"/10"

Maximum Airflow: 300 CFM

Speed: 2700 RPM

Power: Connect to fireplace control box
..... Refer to fireplace rating plate

Before Your Begin

General Information

This installation guide covers installation of the External Power Vent System only. This system is designed to allow installation of gas fireplaces that cannot be done with a standard Direct Vent gas fireplace installation. Only for use on R-Series, R-Series See-Through and RP-Series.

ONLY USE WITH APPROVED FIREPLACES - see fireplace installation manual.

Read through the fireplace's installation & maintenance manual, as it must also be adhered to.

Power Cord Harnesses:

EPVH10 - 10 foot power cord and harness
EPVH20 - 20 foot power cord and harness
EPVH30 - 30 foot power cord and harness
EPVH40 - 40 foot power cord and harness
EPVH50 - 50 foot power cord and harness
EPVH60 - 60 foot power cord and harness
EPVH70 - 70 foot power cord and harness
EPVH80 - 80 foot power cord and harness
EPVH90 - 90 foot power cord and harness
EPVH100 - 100 foot power cord and harness

NOTICE

You must read and understand this manual prior to installation, operation or troubleshooting this appliance. Please retain this owner's manual for future reference and maintenance.



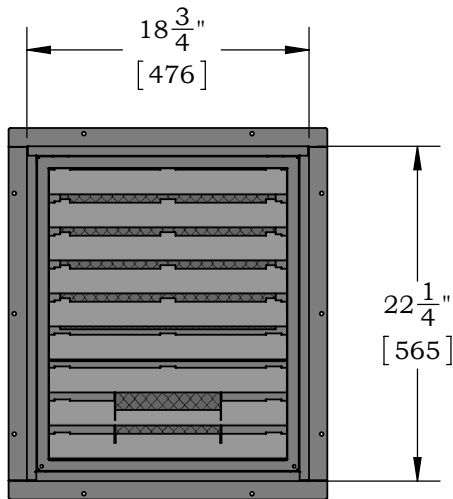
CAUTION

When cold air enters the warmer building interior, primarily at the air intake end, condensation may occur on the exterior of the pipe. To limit this condensation, install insulation over the last twenty feet of pipe. Also, by sloping the last 20' - 0' of pipe downward towards the exterior of the building will help eliminate any condensations problems, should they occur. Ensure the termination is securely fastened and sealed to the pipe. Fasten the termination to the exterior of the building with water tight sealant and the appropriate fasteners.

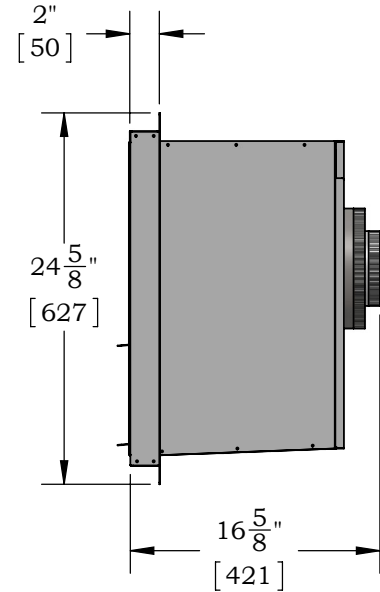
For vent configurations and power vent locations, refer to fireplace manual.

Introduction

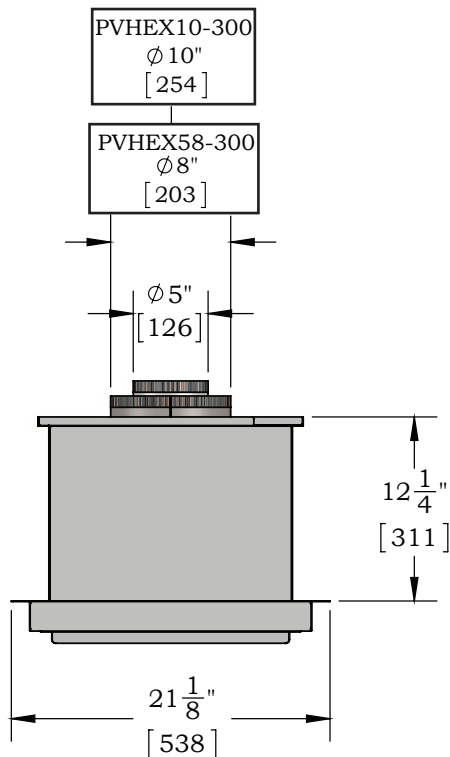
Product Dimensions



Front View



Side View



Top View

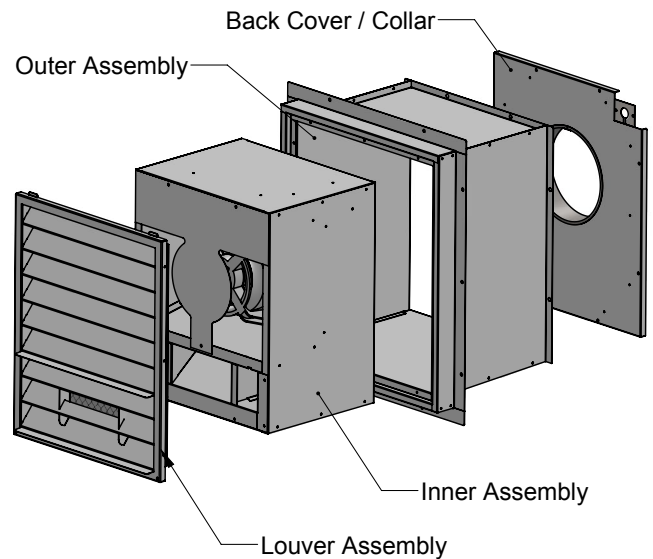


Figure 1. PVHFL58-300 (Tolerance $\pm \frac{1}{8}$ " [mm])



Installation

Installing the power vent

Step 2: Remove the louver assembly by lifting the bottom end forward and then dropping the door out of the top latches.

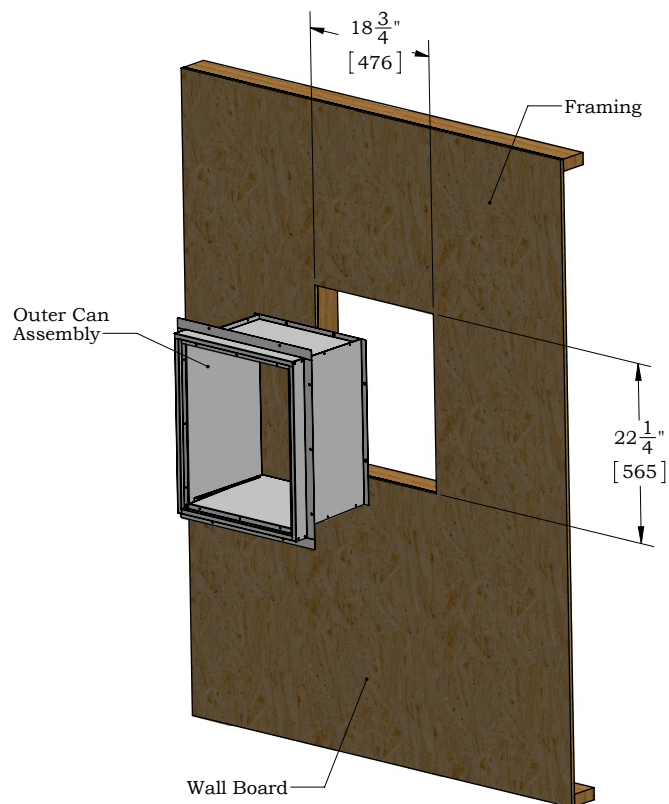


Figure 2. Framing dimensions

Step 1: Unpack power vent from box. Remove two screws from bottom of the door. Hold louver assembly securely so it does not fall.



Figure 3.

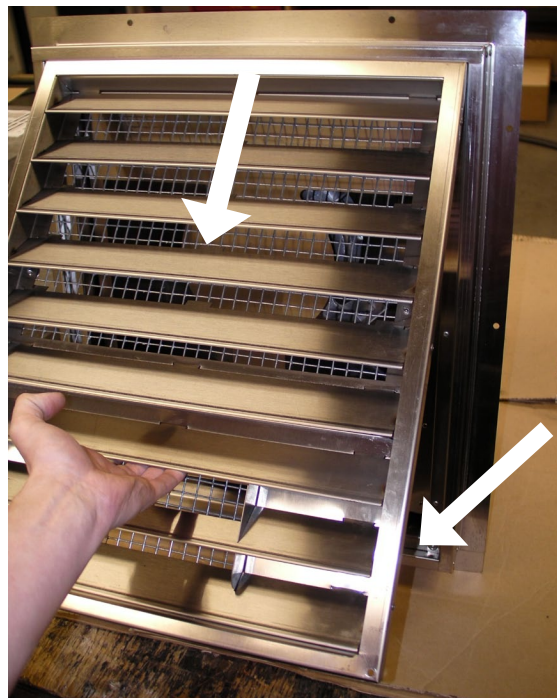


Figure 3a.

Step 3: To remove the inner can from the outer can remove the 8 screws on the back of the termination.

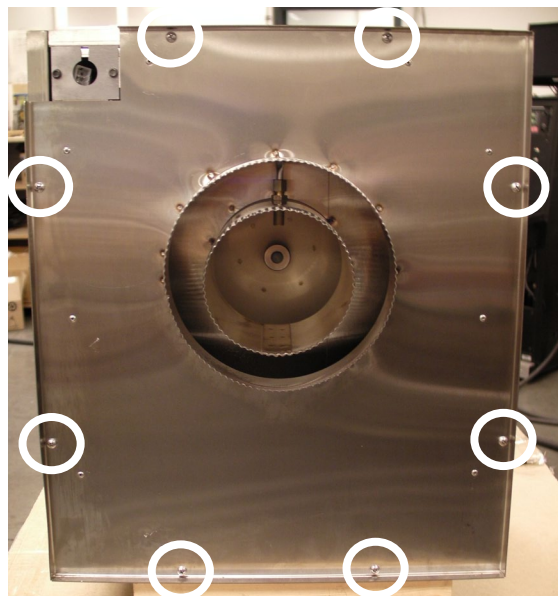


Figure 3b.

Installation



Step 4: Slide the inner can out by pulling

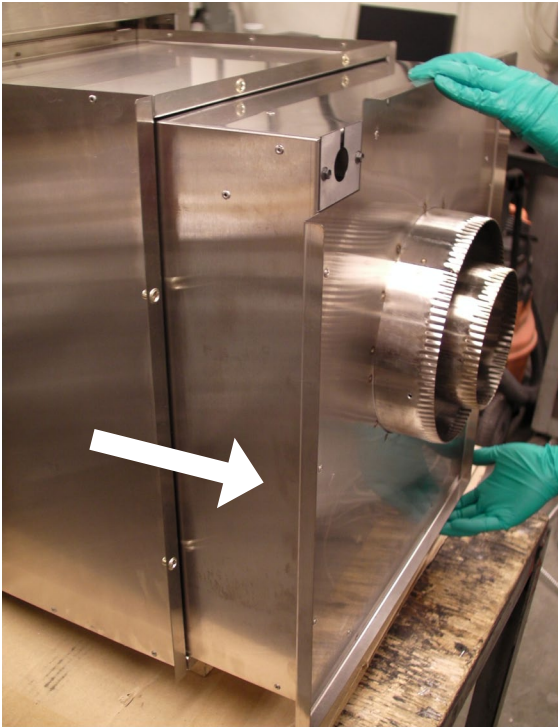


Figure 3c.

Step 5: Screw outer can assembly into the wall

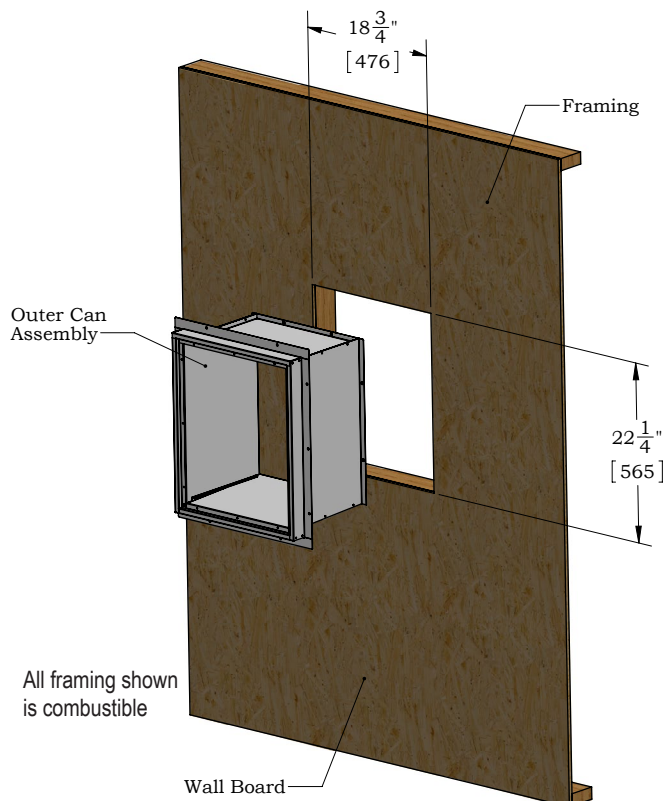


Figure 3d.

Step 6: Slide the inner can assembly into the outer can assembly from the inside of the house.

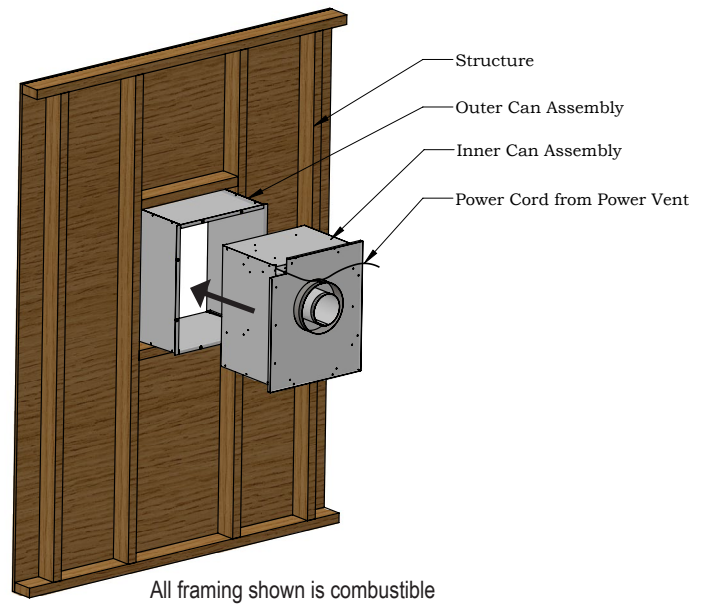


Figure 3e.

Step 7: Screw inner can back to outer can using 8 screws.

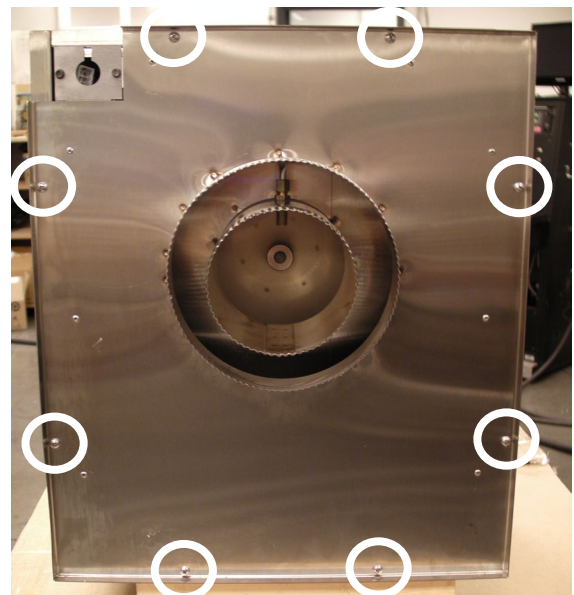


Figure 3f.



Installation

Step 8: Remove two screws securing electrical plate.

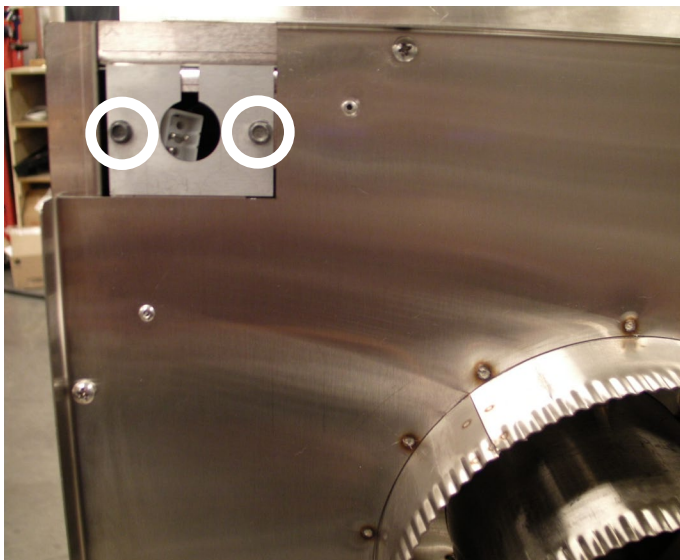


Figure 3g.

Step 9: Remove the power vent power cable from inside the electrical channel.



Figure 3h.

Step 10: Take the electrical harness [EPVH-10-100] that will communicate with the power vent and attach the strain relief for it to the electrical plate. Tighten the nut on the strain relief.



Figure 3i.

Step 11: Attach the power cable from the power vent to the control cable.

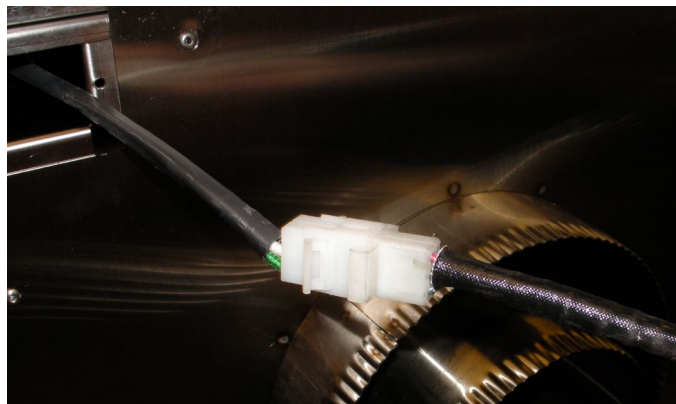


Figure 3j.

Step 12: Push all the excess cable back into the electrical channel of the power vent. Screw the electrical plate back on the power vent.



Figure 3j.

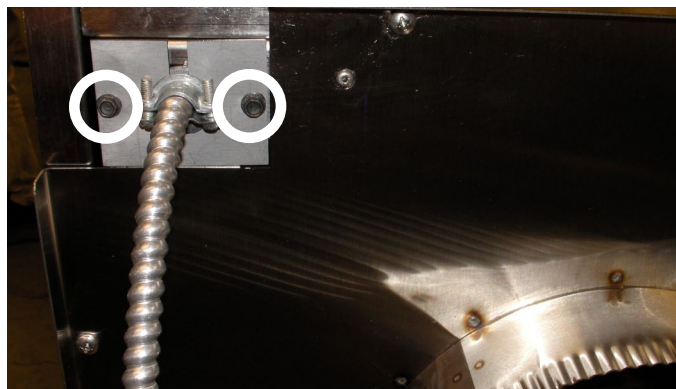


Figure 3k.

Installation



Step 13: Reinstall the door.

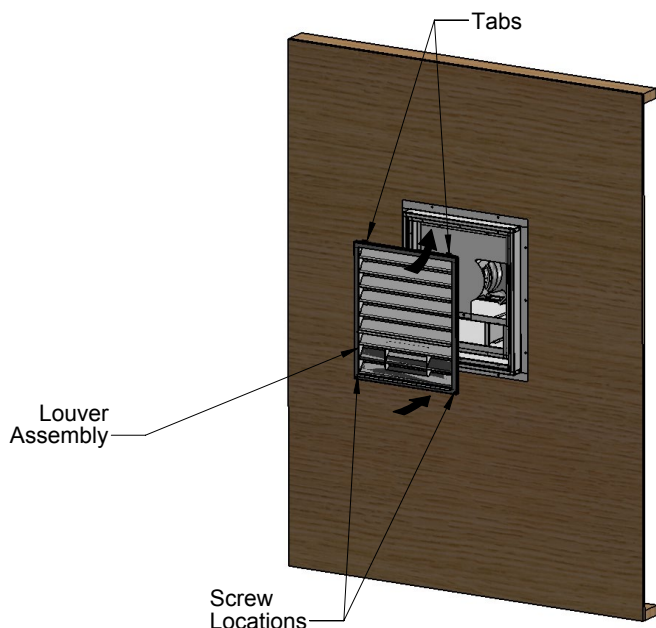


Figure 3l.

Step 14: Connect vent pipe to power vent collar as required.

Note: If you are intending to service power vent from inside the house, use a 4-foot flex pipe to allow for easy removal of pipe from power vent.

Wiring Installation

Conduit & Wiring clearances

Connect the power vent harness as outlined. Connect the wiring to the fireplace as outlined in the schematic shown in **figure 4a**. Ensure that the proper clearances are maintained for the wiring and conduit. When installing the wiring it must never run above the vent run and it must be at least 1" clear of all venting.

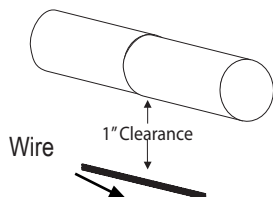


Figure 4. Conduit and Wiring

Service



Power Vent Wiring

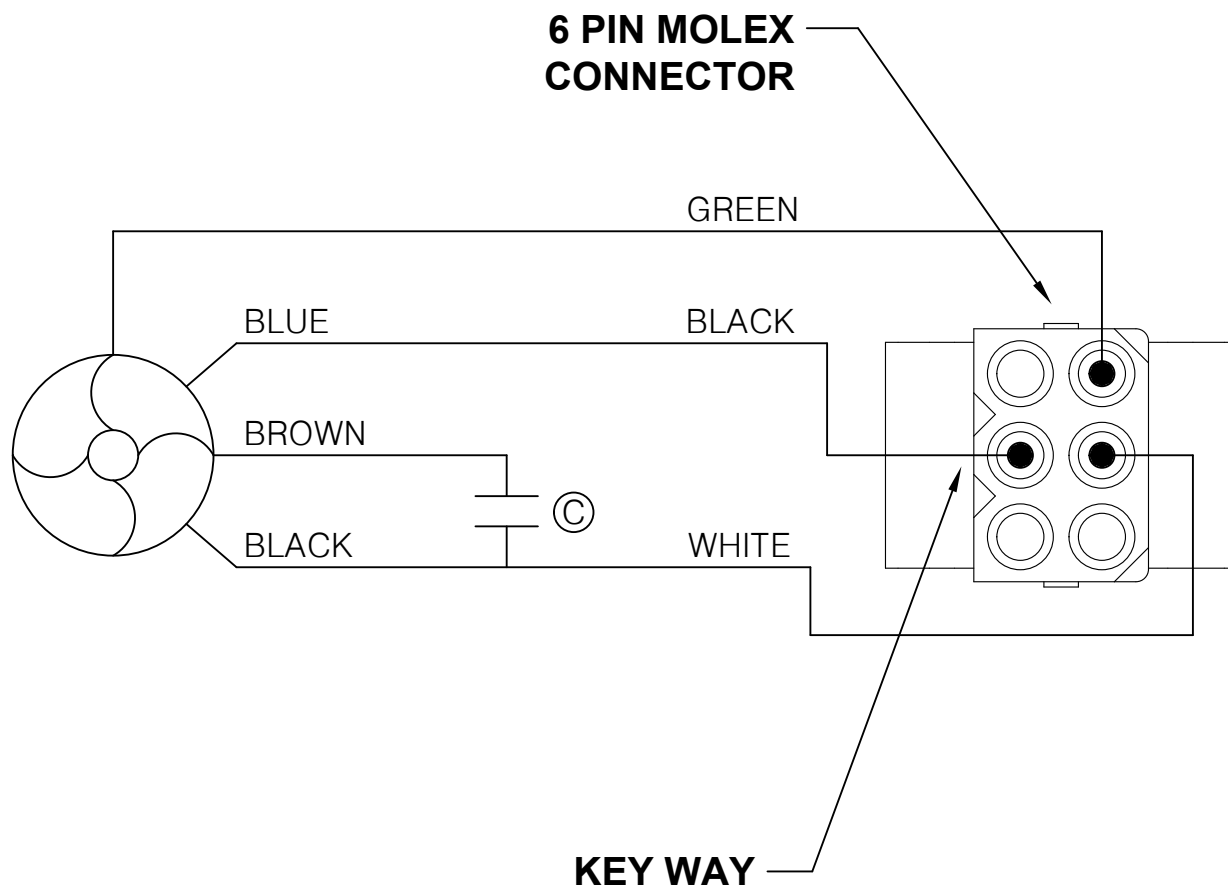
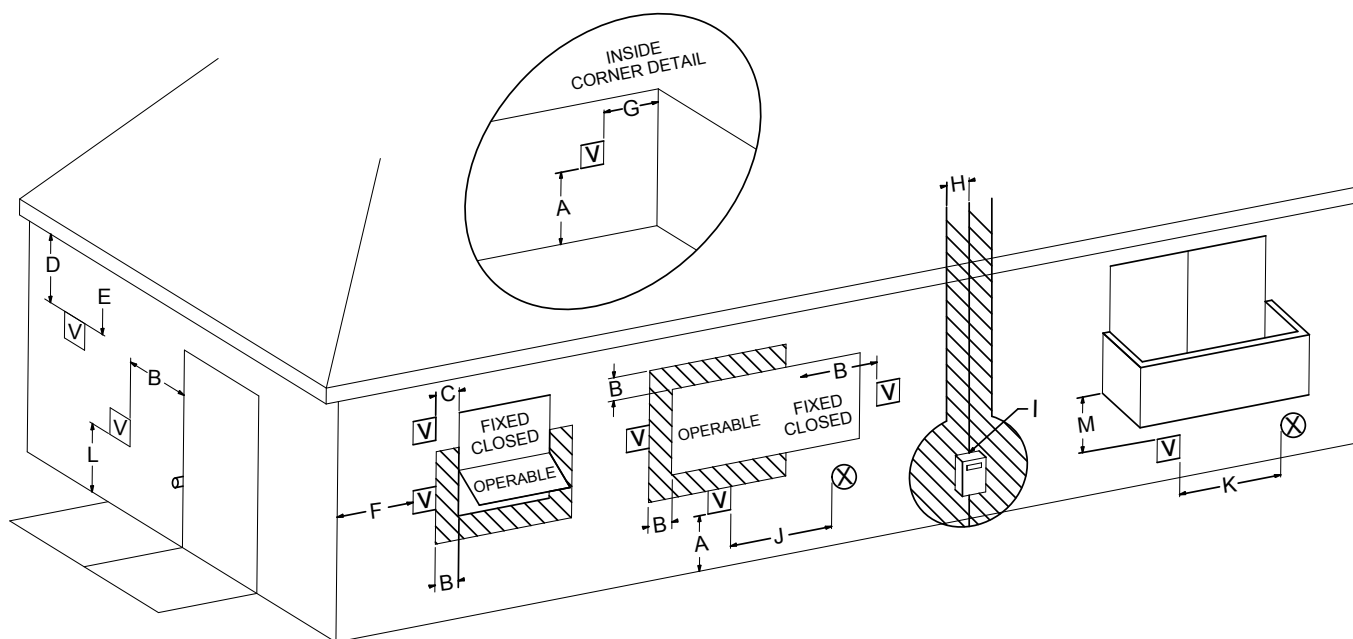


Figure 4a.



Installation



V VENTER TERMINAL

X AIR SUPPLY INLET

Hatched Box AREA WHERE TERMINAL IS NOT PERMITTED

	Canadian Installations ¹	US Installations ²
A= Clearance above grade, veranda, porch, deck, or balcony	12 in (30 cm)	12 in (30 cm)
B= Clearance to window or door that may be opened	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 12 in (30 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 100,000 Btuh (30 kW), 36 in (91 cm) for appliances > 100,000 Btuh (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 in (23 cm) for appliances > 10,000 Btuh (3 kW) and < 50,000 Btuh (15 kW), 12 in (30 cm) for appliances ≥ 50,000 Btuh (15 kW)
C= Clearance to permanently closed window	B	B
D= Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2 feet (61 cm) from the center line of the terminal	See Fireplace Installation Guide	
E= Clearance to unventilated soffit	See Fireplace Installation Guide	
F= Clearance to outside corner	6 in (15 cm)	6 in (15 cm)
G= Clearance to inside corner	See Fireplace Installation Guide	
H= Clearance to each side of center line extended above meter/regulator assembly	3 ft (91 cm) within a height 15 ft. (4.5 m) above the meter/regulator assembly	*
I= Clearance to service regulator vent outlet	3 ft (91 cm)	*

	Canadian Installations ¹	US Installations ²
J= Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliance	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 12 in (30 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 100,000 Btuh (30 kW), 36 in (91 cm) for appliances > 100,000 Btuh (30 kW)	6 in (15 cm) for appliances ≤ 10,000 Btuh (3 kW), 9 in (23 cm) for appliances > 10,000 Btuh (3 kW) and ≤ 50,000 Btuh (15 kW), 12 in (30 cm) for appliances > 50,000 Btuh (15 kW)
K= Clearance to a mechanical air supply inlet	6 ft (1.83 m)	3 ft (91 cm) above if within 10 ft (3 m) horizontally
L= Clearance above paved sidewalk or paved driveway located on public property	7 ft (2.13 m) †	*
M= Clearance under veranda porch deck, or balcony	12 in (30 cm) ‡	*

¹ In accordance with the current CSA B149.1, Natural Gas and Propane Installation Code

² In accordance with the current ANSI Z223.1/NFPA 54, National Fuel Gas Code

† A vent shall not terminate directly above a sidewalk or paved driveway that is located between two single family dwellings and serves both dwellings.

‡ Permitted only if veranda, porch, deck, or balcony is fully open on a minimum of two sides beneath the floor.

* For clearances not specified in ANSI Z223.1/NFPA or CSA B149.1, one of the following shall be indicated

a) A minimum clearance value determined by testing in accordance with section 2.23.5, or;

b) A reference to the following footnote:

"Clearance in accordance with local installation codes and the requirements of the gas supplier"

Figure 4b.

Service



Servicing

From the outside of the house

Step 1: Turn off gas and power.

Step 2: Remove two screws from the bottom of the louver assembly.

Caution: Hold the louver assembly securely so it does not fall.

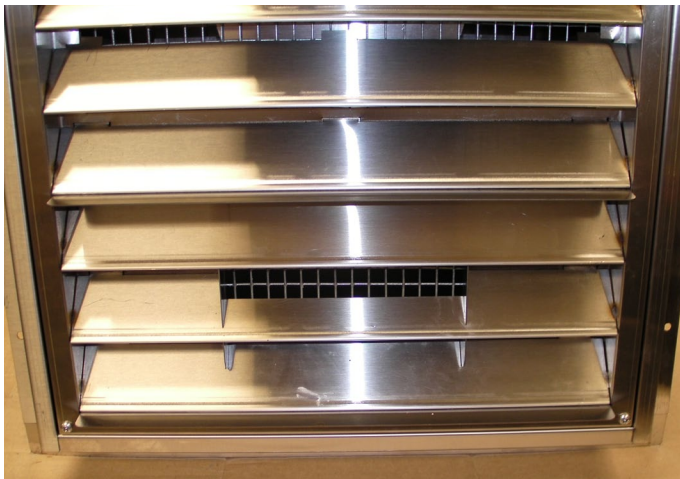


Figure 5.

Step 3: Remove the louver assembly by lifting the bottom end forward and then dropping the door out of the top latches.

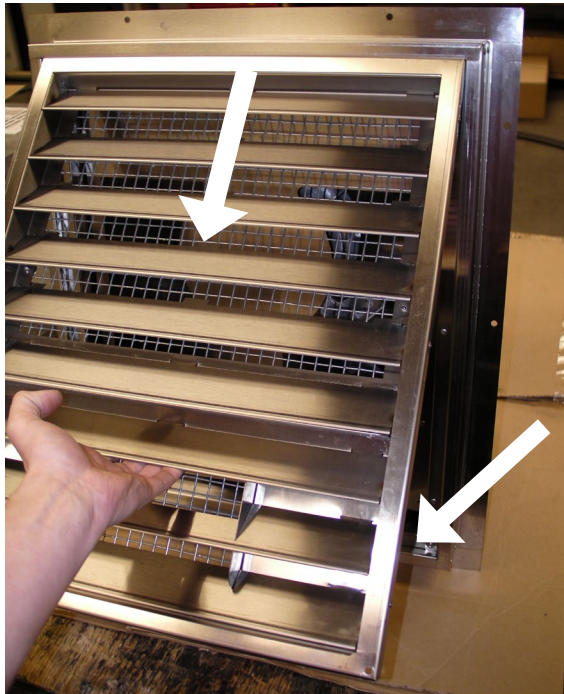


Figure 5a.

Step 4: Remove the three screws securing the rain guard.



Figure 5b.

Go to Capacitor or Motor and Capacitor Replacement Section.



Service

Reinstalling from the outside

Step 1: Reinstall the rain guard using the supplied 3 screws.



Figure 6.

Step 2: Reinstall door with supplied 2 screws.

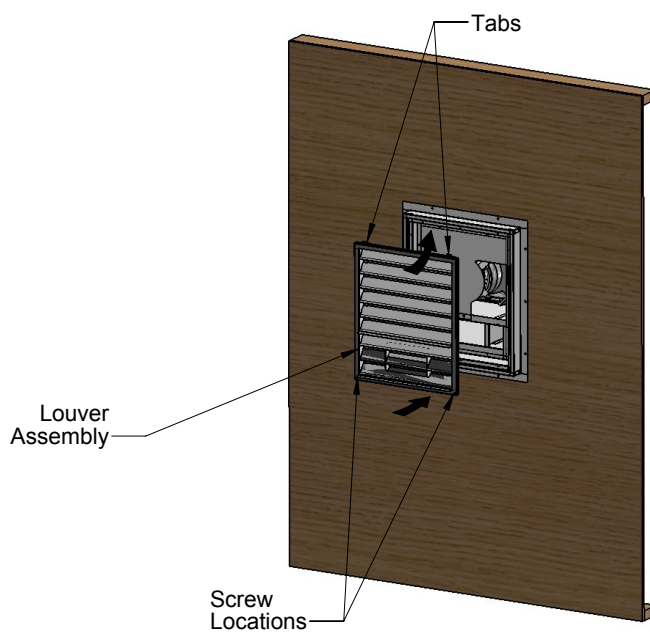


Figure 6a.

Service



Servicing From the inside of the house

Step 1: Turn off gas and power.

Step 2: Disconnect venting from the power vent

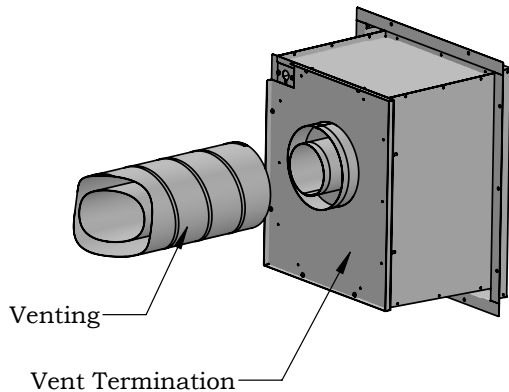


Figure 7.

Step 3: Remove two screws securing the electrical plate.

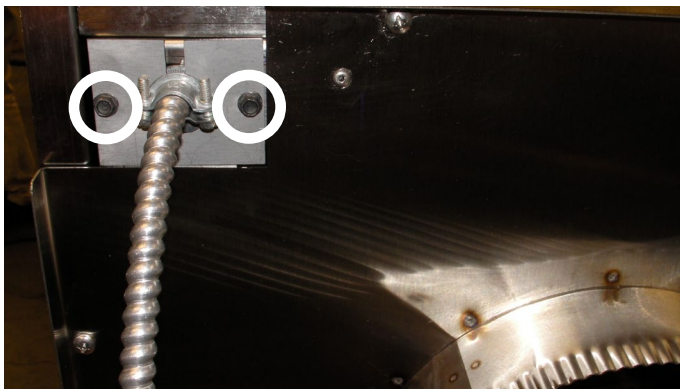


Figure 7a.

Step 4: Pull electrical plate off the power vent and pull the molex connection out of the electrical channel. Disconnect the molex.

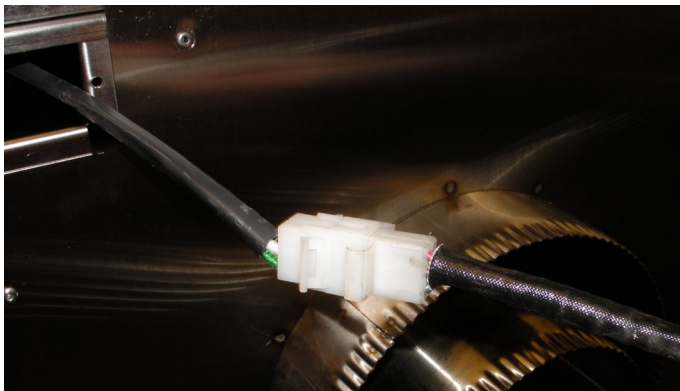


Figure 7b.

Step 5: Remove 8 screws securing the inner can assembly to the outer can assembly.

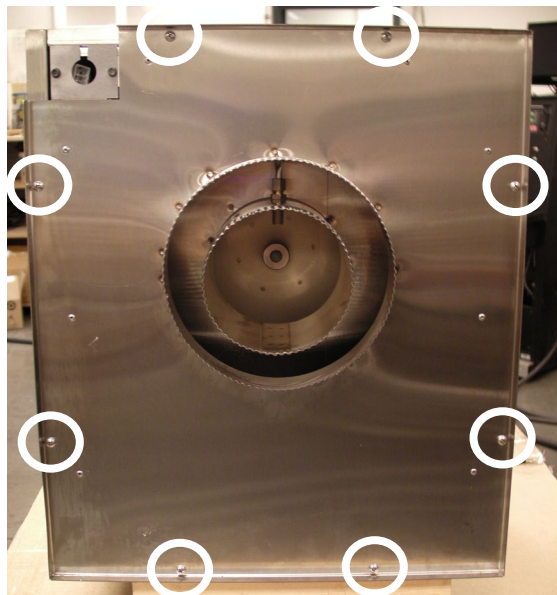


Figure 7c.

Step 6: Slide the inner can out by pulling. Place the inner can assembly somewhere to work.

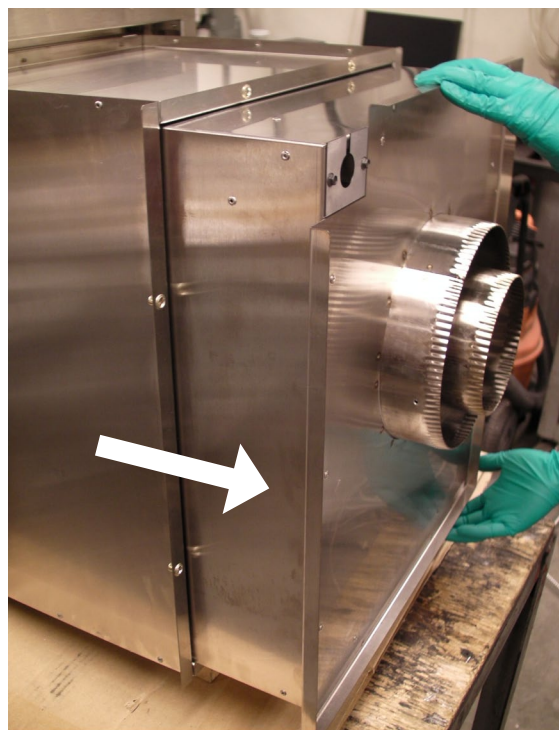


Figure 7d.



Service

Step 7: Remove the three screws securing the rain guard.



Figure 7e.

Go to Capacitor or Motor and Capacitor Replacement Section.

Service



Reinstalling the inner can From the inside of the house

Step 1: Screw the rain guard back on with the supplied 3 screws.



Figure 8.

Step 2: Slide the inner can into the outer can

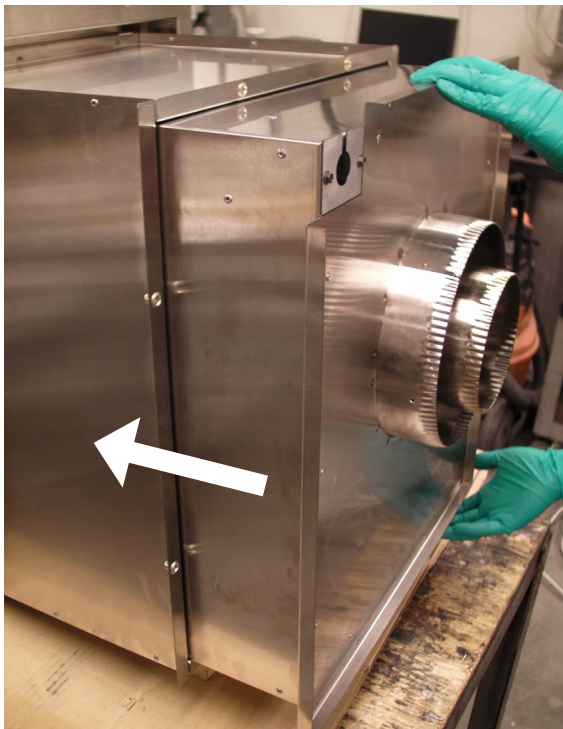


Figure 8a.

Step 3: Secure inner can to the outer can with supplied 8 screws.

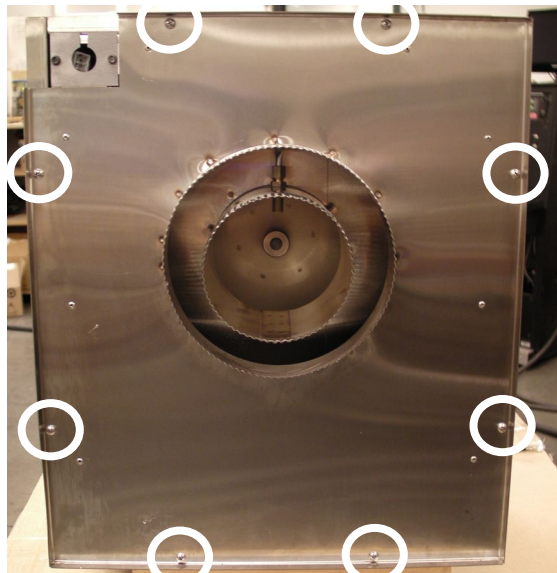


Figure 8b.

Step 4: Plug control cable back into power vent power cable.

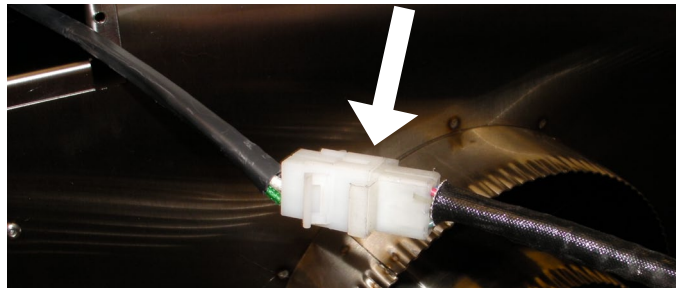


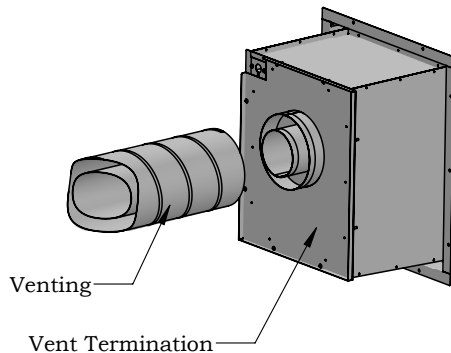
Figure 8c.

Step 5: Stuff excess wire back into electrical channel and secure electrical plate with supplied two screws.



Figure 8d.

Step 6: Reconnect venting to the power vent.



Step 7: Check spin and operation of power vent from outside.



Service

Capacitor Replacement

REC 1250 Note: Maintenance must be performed by qualified personnel/ electrician

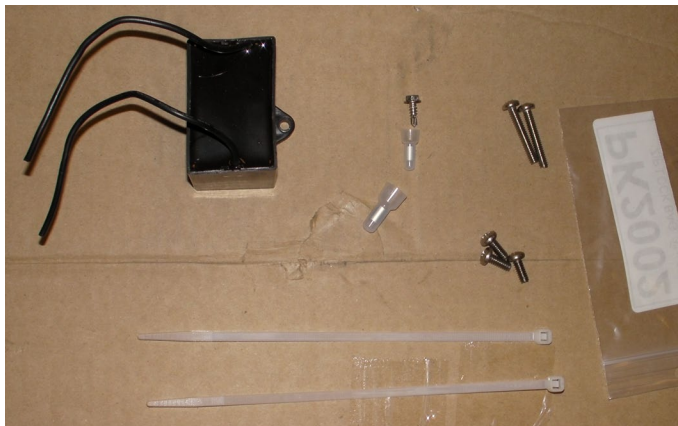


Figure 9.

Step 1: Cut the two zip straps securing the wiring.

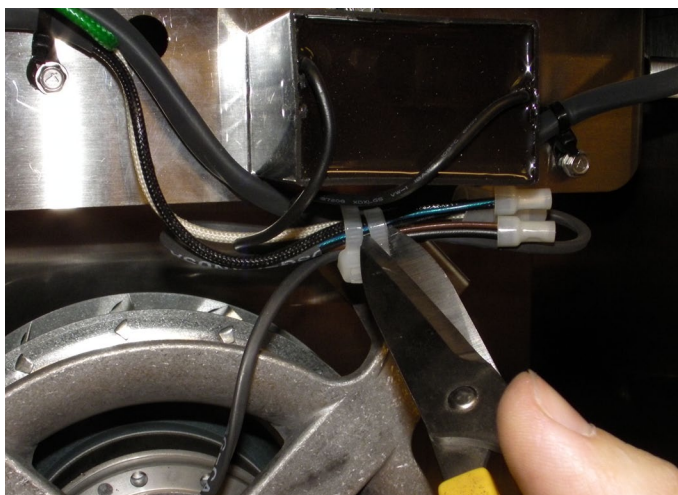


Figure 9a.

Step 2: Cut the brown wire from the motor.

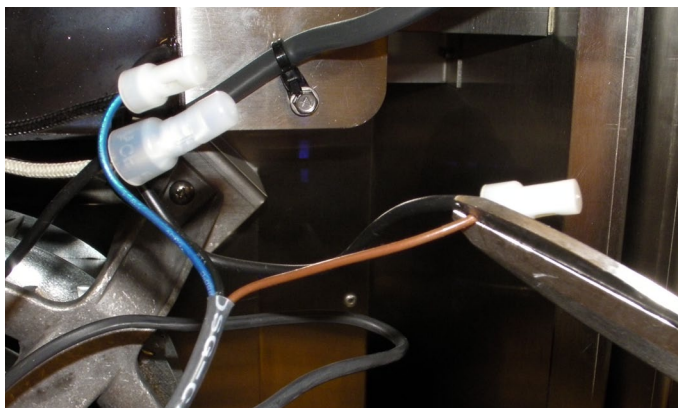


Figure 9b.

Step 3: Cut fibre white wire from power cable, black wire from capacitor and black wire from motor.

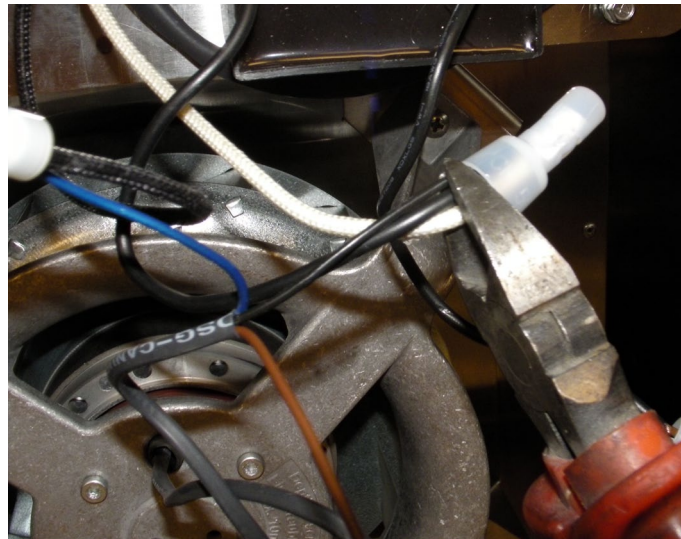


Figure 9c.

Step 4: Unscrew mounting screw securing capacitor and remove capacitor.



Figure 9d.

Step 5: Strip all wire ends. Secure new capacitor with mounting screw.



Figure 9e.

Service



Step 6: Using the large bell connector, connect the black fibre wire from the power cable to the black wire from the motor and the black wire from the capacitor.

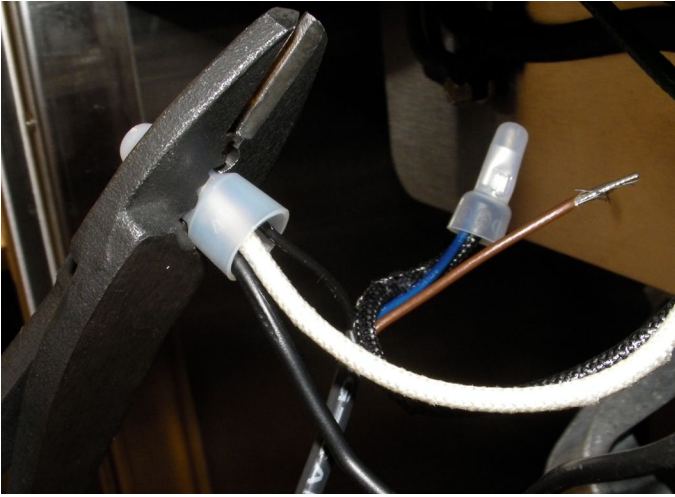


Figure 9f.

Step 7: Using the small bell connector, connect the brown wire from the motor to the black wire from the capacitor.

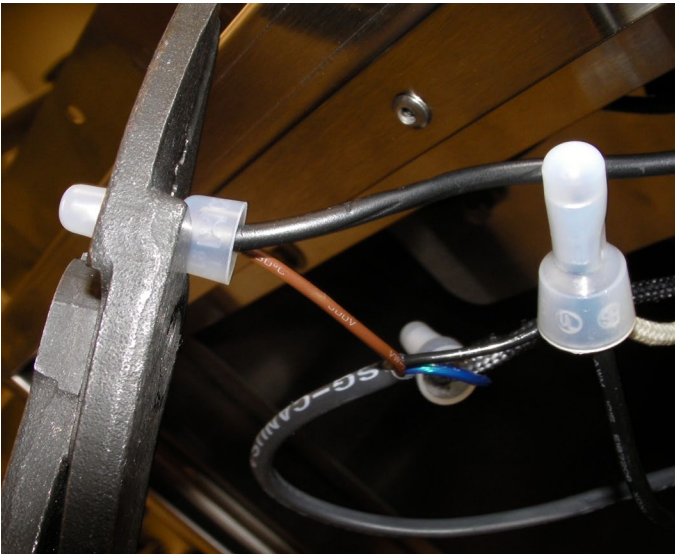


Figure 9g.

Step 8: Secure the wiring neatly with the supplied zap straps. Check that the power vent operates and spins counterclockwise. Note: When replacing from the inside you will need to reinstall the power vent and check spin from the outside. Note: Ensure wires are secured away from moving parts

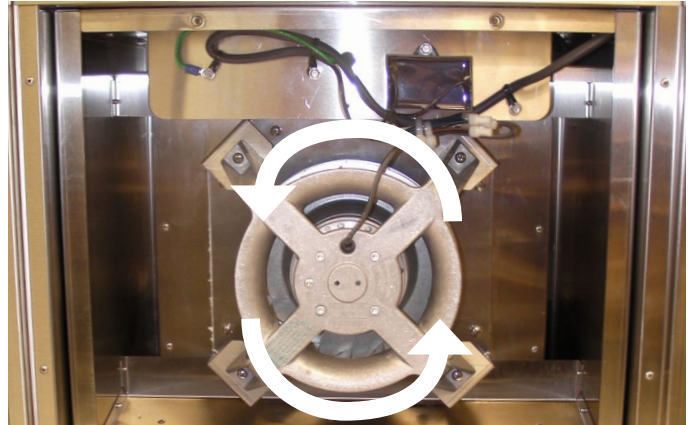


Figure 9h.

Go to reinstalling either from outside or inside.



Service

Motor and Capacitor Replacement

REC 1251 Note: Maintenance must be performed by qualified personnel/ electrician

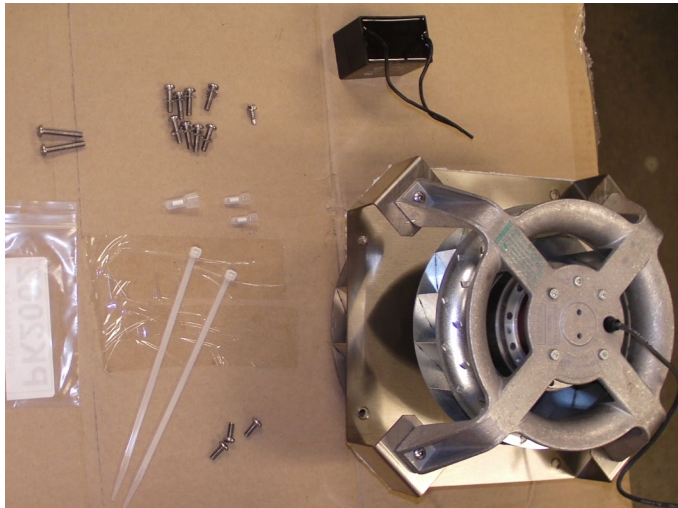


Figure 10.

Step 1: Cut the two zap straps securing the wiring.

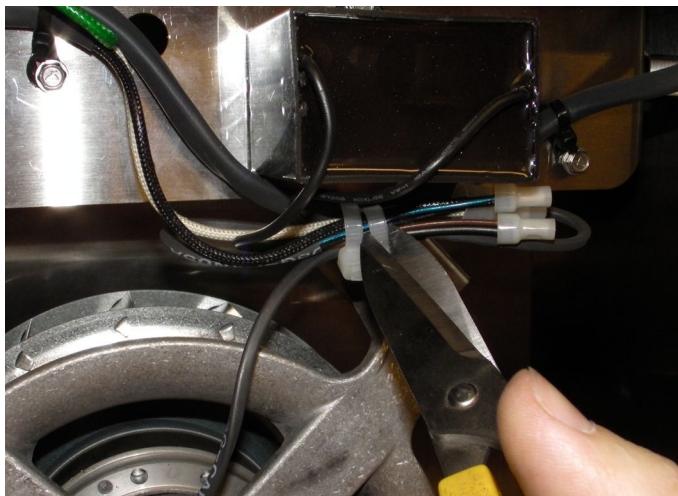


Figure 10a.

Step 2: Cut the brown wire from the motor.

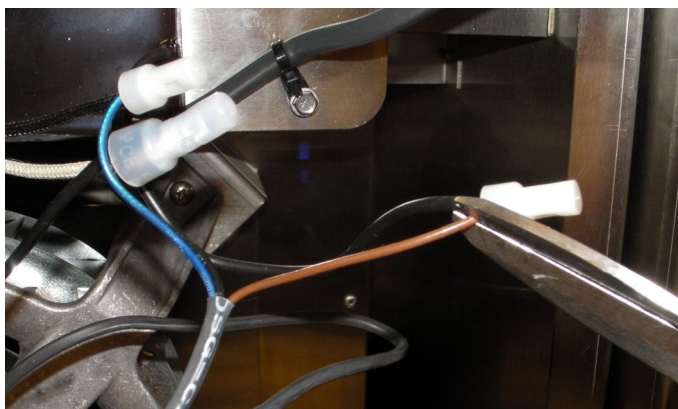


Figure 10b.

Step 3: Cut fibre white wire from power cable, black wire from capacitor and black wire from motor.

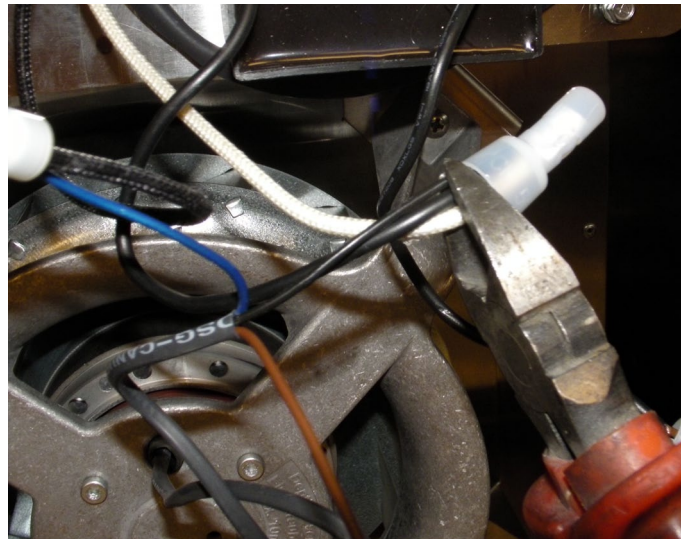


Figure 10c.

Step 4: Cut the black fiber wire from the power cable.

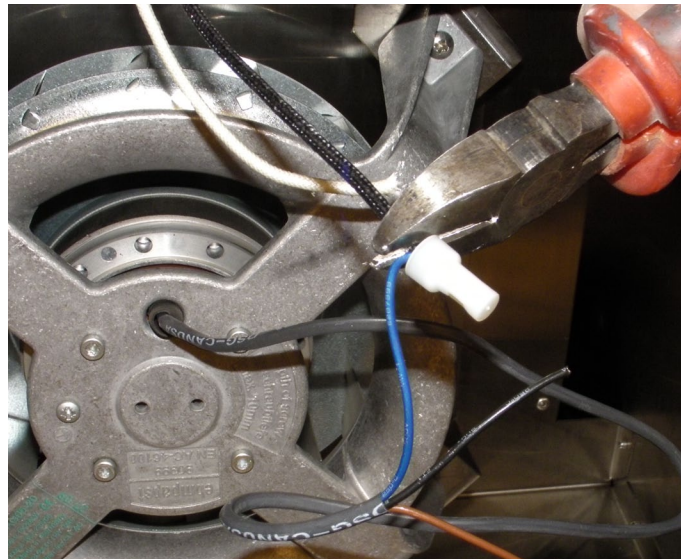


Figure 10d.

Step 5: Unscrew mounting screw securing capacitor and remove capacitor.



Figure 10e.

Service



Step 6: Unscrew 8 screws securing the motor mounting plate.

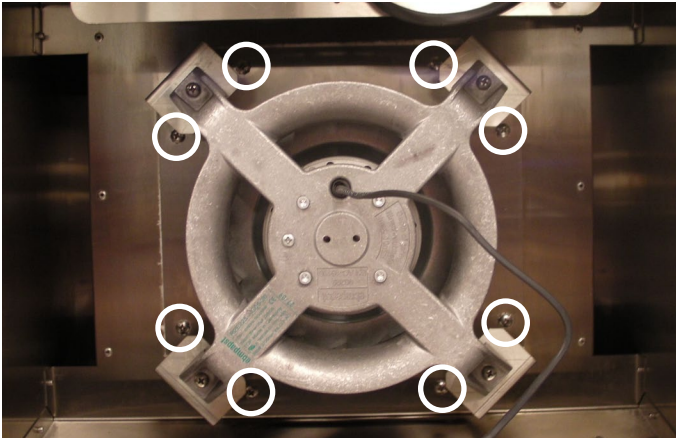


Figure 10f.

Step 7: Remove the motor.

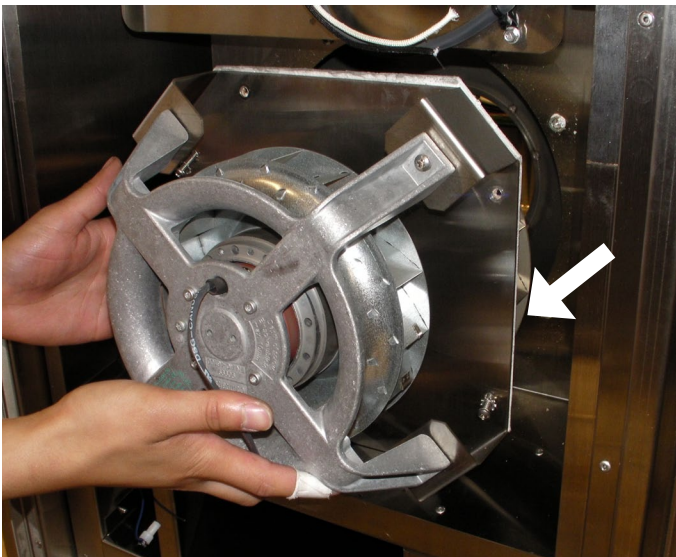


Figure 10g.

Step 8: Install the new motor.

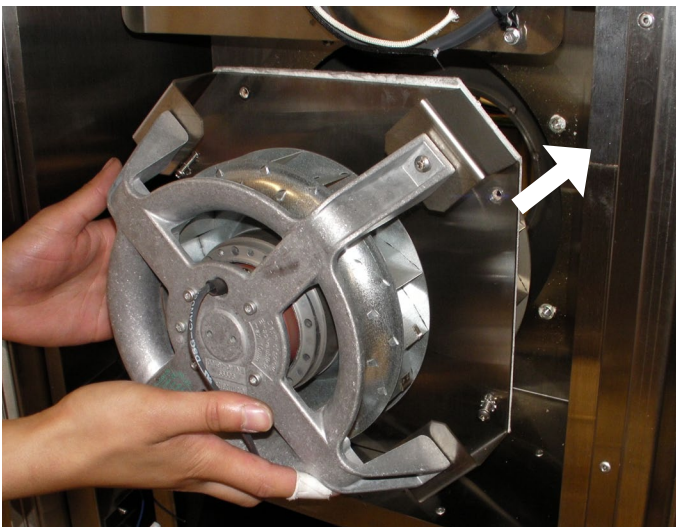


Figure 10h.

Step 9: Secure motor mounting plate with supplied 8 screws & star washers.

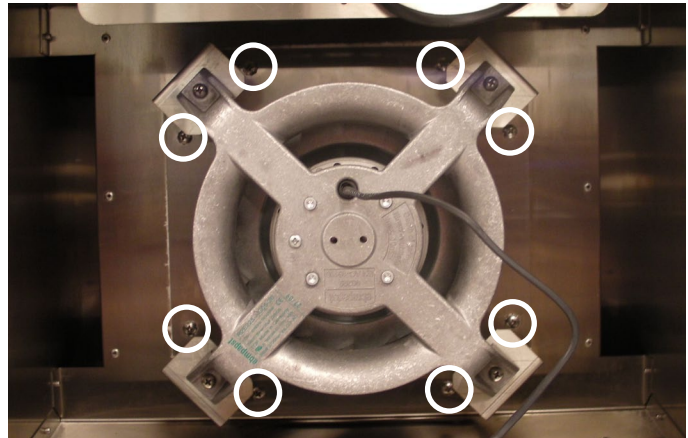


Figure 10i.

Step 10: Secure new capacitor with supplied screw.

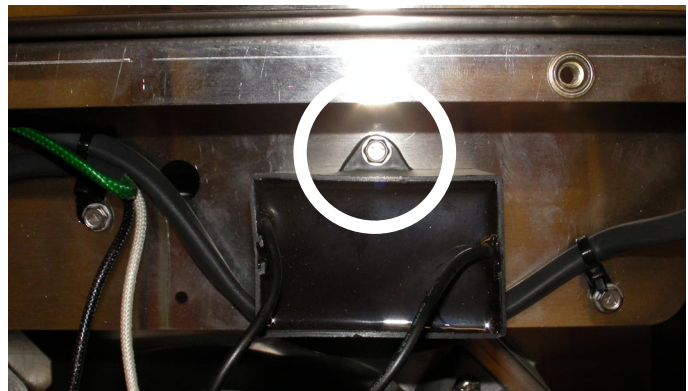


Figure 10j.

Step 11: Using supplied small bell connector, connect the blue wire from the motor to the black fibre wire from the power cable.

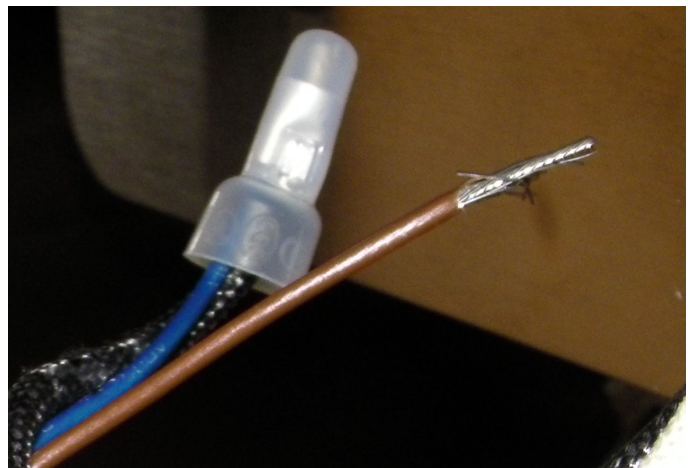


Figure 10k.



Service

Step 12: Using the other supplied large bell connector, connect the white fibre wire from the power cable to the black wire from the capacitor and the black wire from the motor.

Go to reinstalling either from outside or inside.

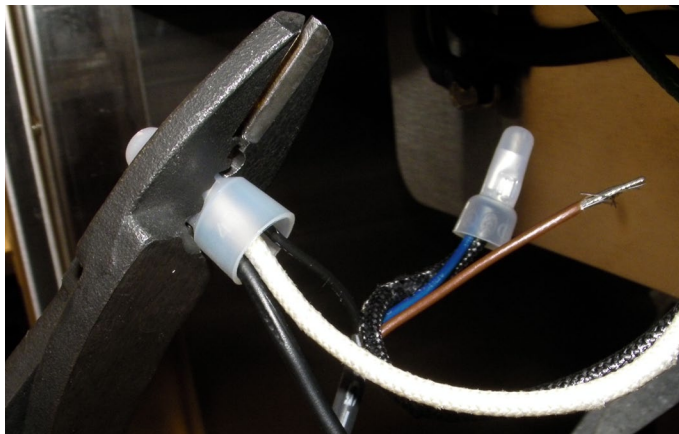


Figure 10l.

Step 13: Using the other supplied small bell connector, connect the brown wire from the motor to the black wire of the capacitor.

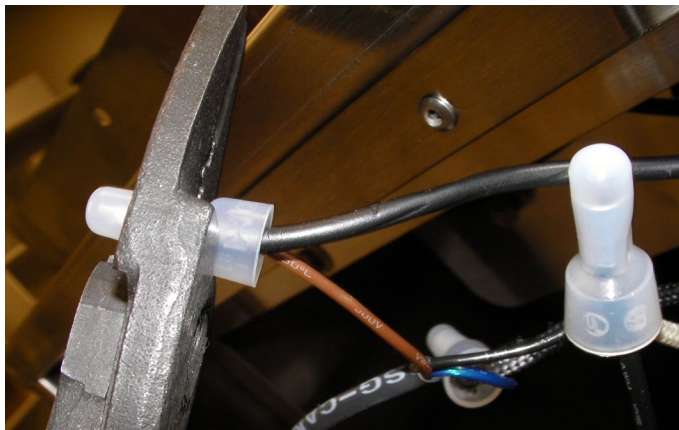


Figure 10m.

Step 14: Secure the wiring neatly with the supplied zap straps. Check that the power vent operates and spins counterclockwise. NOTE: When replacing from inside you will need to reinstall the power vent and check spin from the outside. Note: Ensure wires are secured away from moving parts

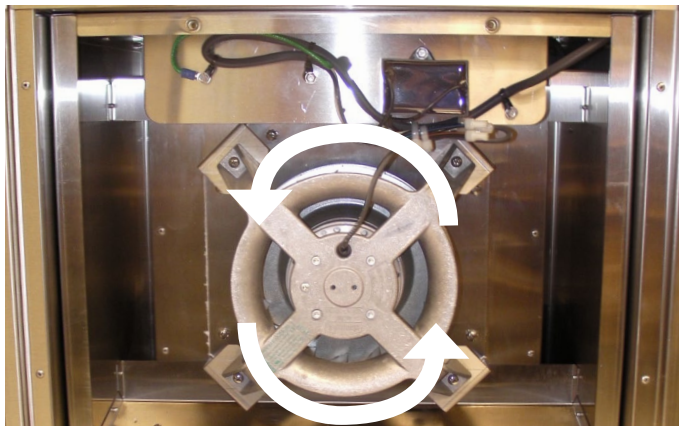


Figure 10n.

Appendix

Appendix A: Warranty

The Warranty

The Companies warrants the Montigo Gas Appliance to be free from defects in materials and workmanship at the time of manufacture. On the Montigo fireplace, there is a ten-year warranty on the firebox and its components, a five-year warranty on the main burner and pilot burner, and a one-year warranty on the gas control valve, fibre logs and Power Vent Module. The Glass, plated / painted finishes, and refractory lining are exempt from the warranty.

Remedy And Exclusions

The coverage of this Warranty is limited to all components of the Gas Appliance manufactured by The Companies.

This Warranty only covers Montigo Gas Appliances installed in the United States or Canada.

If the components of the Gas Appliance covered by this Warranty are found to be defective within the time frame stated (see The Companies right of investigation outlined below). The Companies will, at its option, replace or repair defective components of the Gas Appliance manufactured by The Companies at no charge, and will also pay for reasonable labour costs incurred in replacing or repairing components. If repair or replacement is not commercially practical, The Companies will, at its option, refund the purchase price of the Montigo Gas Appliance.

This Warranty covers only parts and labour as provided above. In no case shall The Companies be responsible for materials, components, or construction which are not manufactured or supplied by The Companies, or for the labour necessary to install, repair or remove such materials, components or construction. All replacement or repair components will be shipped F.O.B. the nearest The Companies factory.

Qualifications To The Warranty

The Gas Appliance Warranty outlined above is further subject to the following qualifications:

- (1) The Gas Appliance must be installed in accordance with The Companies installation instructions and local building codes. The Warranty on this Montigo Gas Appliance covers only the component parts manufactured by The Companies. The use of components manufactured by others with this Montigo Gas Appliance could create serious safety hazards, may result in the denial of certification by recognized national safety agencies, and could be in violation of local building codes. This warranty does not cover any damages occurring from the use of any components not manufactured or supplied by The Companies
- (2) The Montigo Gas Appliance must be subjected to normal use. The Gas Appliances are designed to burn gas only. Burning conventional fireplace fuels such as wood, coal or any other solid fuel will cause damage to the Gas Appliance, will produce excessive temperatures and will result in a fire hazard.

Limitations On Liability

It is expressly agreed and understood that The Companies sole obligation, and purchaser's exclusive remedy under this Warranty, under any other warranty, expressed or implied, or in contract, tort or otherwise, shall be limited to replacement, repair, or refund, as specified above.

In no event shall The Companies be responsible for any incidental or consequential damages caused by defects in its products, whether such damage occurs or is discovered before or after replacement or repair, and whether or not such damage is caused by The Companies negligence. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. The duration of any implied warranty with respect to this Montigo Gas Appliance is limited to the duration of the foregoing warranty. Some states do not allow limitation on how long an implied warranty lasts, so the above may not apply to you.

Investigation Of Claims Against Warranty

The Companies reserves the right to investigate any and all claims against this Warranty and to decide upon method of settlement.

The Companies Are Not Responsible For Work Done Without Written Consent

The Companies shall in no event be responsible for any warranty work done without first obtaining The Companies written consent.

Dealers Have No Authority To Alter This Warranty

The Companies employees and dealers have no authority to make any warranties nor to authorize any remedies in addition to or inconsistent with those stated above.

How To Register A Claim Against Warranty

In order for any claim under this Warranty to be valid, The Companies must be notified of the claimed defect in writing or by telephone, as soon as reasonably possible after the defect is discovered. Claims against this Warranty in writing should include the date of installation, and a description of the defect.

Other Rights

This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

NOTE: The Companies as stated above refer to - Canadian Heating Products Inc. and/or Montigo Del Ray Corp.

Canadian Heating Products Inc. and/or Montigo DelRay Corp. reserves the right to make changes at any time, without notice, in design, materials, specifications, prices and also to discontinue colors, styles and products.

Appendix

Appendix B: State of Massachusetts

Amendment

(Gas Fireplace / Equipment sold in the State of Massachusetts)

5.08: Modifications to NFPA-54, Chapter 10

(1) Revise NFPA-54 section 10.5.4.2 by adding a second exception as follows:

Existing chimneys shall be permitted to have their use continued when a gas conversion burner is installed, and shall be equipped with a manually reset device that will automatically shut off the gas to the burner in the event of a sustained back-draft.

(2) Revise 10.8.3 by adding the following additional requirements:

(a) For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

1. INSTALLATION OF CARBON MONOXIDE DETECTORS. At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm and battery back-up is installed on the floor level where the gas equipment is to be installed. In addition, the installing plumber or gas fitter shall observe that a battery operated or hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontal vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors

a. In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

b. In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

2. APPROVED CARBON MONOXIDE DETECTORS. Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and be ANSI/UL 2034 listed and IAS certified.

3. SIGNAGE. A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, "GAS VENT DIRECTLY BELOW. KEEP CLEAR OF ALL OBSTRUCTIONS".

4. INSPECTION. The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

(b) EXEMPTIONS: The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

1. The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and

2. Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

(c) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM PROVIDED. When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

1. Detailed instructions for the installation of the venting system design or the venting system components; and
2. A complete parts list for the venting system design or venting system.

(d) MANUFACTURER REQUIREMENTS - GAS EQUIPMENT VENTING SYSTEM NOT PROVIDED. When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

1. The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and

2. The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

(e) A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

(3) After NFPA-54 section 10.10.4.2 add a new section 10.10.4.3 as follows:

When more than four gas appliances are to be vented through a common gas vent or common horizontal vent manifold, a plan of the proposed vent installation shall be submitted to the Inspector and the serving gas supplier for review and approval.

Extraction from: Massachusetts Rules and Regulations

5.00: Amendments To 2002 Edition Of ANSI Z223.1-NFPA-54



PVHFL58-300 & PVHFL510-300 Power Vent Termination

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